



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,298	03/27/2001	Ruth D. Kreichauf	1004.1136102	8636

128 7590 02/13/2004

HONEYWELL INTERNATIONAL INC.  
101 COLUMBIA ROAD  
P O BOX 2245  
MORRISTOWN, NJ 07962-2245

EXAMINER
----------

CONLEY, SEAN E

ART UNIT	PAPER NUMBER
----------	--------------

1744

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/822,298

Applicant(s)

KREICHAUF, RUTH D.

Examiner

Sean E Conley

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 32-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 32-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gamow (U.S. Pat. 5,398,678).

Gamow discloses a portable hyperbaric chamber that allows a person to perform endurance exercise at different pressures in order to improve the athletic performance. The device has an outer shell (1) of air permeable nylon fabric and an inner shell (2) of air-impermeable vinyl. The shell is constructed to be airtight and sealed off from the surrounding atmosphere. The chamber is large enough to house exercise equipment such as an exercise bike or treadmill (see col. 4, lines 40-68). The oxygen content

Art Unit: 1744

inside the chamber is replenished by an oxygen tank (13) and excess carbon dioxide is removed from inside of the chamber by a chemical scavenger (10) which are scrubber pads such as lithium hydroxide scrubbers provided by Dupont (see col. 18, lines 14-46 and col. 8, lines 41-52).

Gamow does not specifically recite that the hyperbaric chamber is located within a building. However, it is obvious to place the chamber within a building in order to exercise on an exercise bike to improve athletic performance. As a result, the chamber would be a room located inside of a building that is sealed off from the return and supply ducts thus forming a life-sustaining atmosphere.

4. Claims 2-4 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gamow as applied to claim 1 and 32 above, and further in view of Mulcahy (U.S. Pat. 4,901,715).

Gamow fails to disclose an oxygen generator that includes an exhaust tube which has a terminal free end outside of the room or a plumbing fixture having a water trap.

Mulcahy discloses an apparatus for establishing gaseous communication between a room of a building, wherein the room contains a toilet bowl, and a building conduit disposed within the building. The building conduit is in gaseous communication with the atmospheric gases outside of the building. The toilet bowl has a water level forming a water trap and the toilet bowl includes a flexible water-impermeable, tubular member inserted completely through the water trap so that a first end of the flexible

Art Unit: 1744

tubular member is disposed on a building conduit side of the water trap and a second end of the flexible tubular member is disposed on a room side of the water trap (see figures and column 2, line 38-column 3, line 26). Additionally, it is shown in figure 5 that the user end of the apparatus inside the room may be a breathing mask (94).

Therefore, it would have been obvious to one having one of ordinary skill in the art at the time the invention was made to modify the invention of Gamow and add a plumbing fixture having a water trap and exhaust tube as taught by Mulcahy in order to exhaust the unused oxygen from the user's atmosphere.

5. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gamow as applied to claim 1 above and further in view of the applicant's admitted state of the prior art.

Gamow does not disclose a chemical oxygen source wherein the chemical source includes a chemical compound which generates oxygen in the presence of water. Also, Gamow does not disclose or suggest a chemical air revitalization compound such as potassium superperoxide that serves as both the oxygen source and the carbon dioxide scrubber.

Regarding claim 5, the applicant discloses on page 7, lines 19-23, that it is well known to those skilled in the art to chemically produce oxygen.

Regarding claim 6, the applicant discloses on page 8, lines 6-16, that water based chemical generators for generating oxygen are well known to those skilled in the art.

Regarding claims 7 and 8, the applicant discloses on page 10, lines 18-22, that it is well known to use an air revitalization compound such as potassium superperoxide in order to remove carbon dioxide and generate oxygen.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Gamow and replace the oxygen tank with a functionally equivalent oxygen source such as a chemical oxygen source or an air revitalization compound which are admitted by the applicant as being well known to those skilled in the art.

6. Claims 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gamow (U.S. Pat. 5,398,678) in view of the applicant's admitted state of the prior art.

Gamow discloses a portable hyperbaric chamber that allows a person to perform endurance exercise at different pressures in order to improve the athletic performance. The device has an outer shell (1) of air permeable nylon fabric and an inner shell (2) of air-impermeable vinyl. The shell is constructed to be airtight and sealed off from the surrounding atmosphere. The chamber is large enough to house exercise equipment such as an exercise bike or treadmill (see col. 4, lines 40-68). The oxygen content inside the chamber is replenished by an oxygen tank (13) and excess carbon dioxide is removed from inside of the chamber by a chemical scavenger (10) which are scrubber pads such as lithium hydroxide scrubbers provided by Dupont (see col. 18, lines 14-46 and col. 8, lines 41-52).

Art Unit: 1744

Gamow does not specifically recite that the hyperbaric chamber is located within a building. However, it would have been obvious to one of ordinary skill in the art to place the chamber within a building in order to exercise on an exercise bike to improve athletic performance. As a result, the chamber would be a room inside of a building that is sealed off from the return and supply ducts thus forming a life-sustaining atmosphere. Furthermore, Gamow does not teach an air revitalizing device such as potassium superoxide.

The applicant discloses on page 10, lines 18-22, that it is well known to use an air revitalization compound such as potassium superperoxide in order to remove carbon dioxide and generate oxygen.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Gamow and replace the oxygen tank and carbon dioxide scrubber with a functionally equivalent air revitalization compound that both removes carbon dioxide and generates oxygen as admitted by the applicant as being well known.

7. Claims 2-4, 33-35 and 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gamow as applied to claims 1, 32 and 36 above, and further in view of the applicant's admitted state of the prior art.

Gamow does not disclose an air revitalizing device which includes an oxygen generator that electrolyzes water, an exhaust tube for discharging waste gas from the

oxygen generator, a plumbing fixture having a water trap, a carbon dioxide filter, or a carbon dioxide converter.

The applicant has disclosed, on pages 7-11, that the limitations of claims 2-4, 33-35 and 39-43 are all well known in the art. They are functionally equivalent alternatives which are known to generate oxygen and remove carbon dioxide from an atmosphere.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Gamow and substitute the oxygen tank and carbon dioxide scrubber with any known functionally equivalent means of generating oxygen and removing carbon dioxide such as those disclosed by the applicant as being well known in the art.

### ***Response to Arguments***

8. Applicant's arguments, filed November 21, 2003, with respect to the rejection(s) of claim(s) 1-8 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Gamow (U.S. Pat. 5,398,678). See the above rejections.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Conley, whose telephone number is (571) 272-1273. The examiner can normally be reached on Monday-Friday 8:00 AM - 4:30 PM.



Art Unit: 1744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Robert Warden, can be reached at (571) 272-1281. The Unofficial fax phone number for this group is (703) 305-7719. The Official fax phone number for this Group is (703) 872-9310. The direct fax number to the examiner is (571) 273-1273.

When filing a FAX in Technology Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of the application. This will expedite the processing of your papers.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [robert.warden@uspto.gov]. All Internet e-mail communications will be made of record in the application file. PTO employees will not communicate with applicant via internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is of record express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy published by the Patent and Trademark Office Official Gazette on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist, whose telephone number is (703) 308-0661.

Sean E. Conley  
Patent Examiner  
AU 1744

SEC *HC*  
February 6, 2004

*Robert J. Warden, Sr.*  
ROBERT J. WARDEN, SR.  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700